INTERACTIVE VIEWS FOR NAVIGATING ONTOLOGIES AND DATA ANNOTATIONS

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Our group, at the University of Victoria, is developing a visualization framework for the National Center for Biomedical Ontology (NCBO) as part of the BioPortal initiative. The initial work involved the creation of an applet version of Jambalaya that has been optimized for integration into the BioPortal website.

Our ongoing research involves developing a *degree of interest model* to help users more effectively and efficiently navigate ontologies through the presentation of adaptive visualizations. The technique we are developing is referred to as DIaMOND –Degree of Interest Modelling for Ontology Navigation and Development. DIaMOND is being integrated into two ontology browsing environments: Protégé and OBO-Edit. We will seek user feedback and usage statistics from these deployments to determine requirements for both the degree of interest calculations and for the adaptive visualizations. The end goal is to deploy DIaMOND features on the BioPortal website.

We are also conducting research on visualization for clinical trials and have developed some preliminary prototypes to facilitate requirements gathering for this new application of visualization. The visualizations will focus on displaying the comparisons of interventions within trials (e.g., Drug A vs. Placebo).

Another area of research involves the development of tools to guide ontology users as they perform ontology repository searching, navigation, and alignments. Specifically, we will be designing visualizations and support for user guided ontology alignment. We are investigating how alignments can be used to improve the visual navigation of ontology search results.

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